

HUACAM, Inc.
HCV822 User Manual

www.huacam.com

1.	Welcome	3
1.1	Safety Compliances.....	4
1.2	Warranty	5
2.	Product overview.....	6
2.1	HCV822Camera	6
2.2	HCV822Specifications	7
3.	Installation guide	8
3.1	Minimum Recommended Computer System Requirement.....	8
3.2	Configure the HCV822via Web Browser	8
3.3	HCV822Home Web Page.....	12
3.4	HCV822Configuration & Language Page.....	14
4.	Basic settings explanation	15
4.1.	System Settings Page	15
4.2.	Video & Audio Setting Page	16
4.3.	CMOS Settings Page	18
4.4.	Networking Setting Page	19
4.5.	DDNS Settings Page	21
4.6.	SIP Setting Page	22
4.7.	Status Page	25
5.	Advanced settings explanation	26
5.1	User Management Page.....	26
5.2	Maintenance Page.....	27
5.3	SMTP Setting Page (Email Alarm)	28
5.4	FTP Settings Page (Upload Alarm)	29
5.5	Alarm Server Settings Page (Upload Alarm to supported VMS or HTTP Server).....	30
5.6	Motion Detection Configuration Page (Set Alarm).....	31
5.7	Motion Detection Time Schedule.....	33
5.8	Syslog Settings Page (Troubleshooting)	33
5.9	Software Upgrade.....	34
5.10	Software Upgrade via TFTP, HTTP or HTTPS	34
5.11	Instructions for local firmware upgrade using TFTP server.....	35
5.12	Configuration File Download	35
6.	Restore factory default setting	36
6.1	Factory reset.....	36
7.	Ip surveillance FAQ.....	37

1. Welcome

Thank you for purchasing Huacam's HCV822Outdoor Day/Night High Definition IP Camera, an innovative powerful weatherproof infrared next generation network camera. Its advanced ISP (Image Sensor Processor) powered with state-of-the-art auto-exposure auto-white-balance algorithm and a high quality lens, ensures high fidelity video quality that matches digital still camera color grade in a wide range of light environments. It features cutting edge H.264 real-time video compression with excellent image clarity and color fidelity, industry leading SIP/VoIP for video streaming to smartphones and video phones, IR-CUT (mechanical) for day or night mod, and advanced security protection using strong encryption. The HCV822can be managed with HC_Surf, It is fully compliant with ONVIF standard and offers flexible HTTP API and an SDK for advanced integration.

The HCV822Outdoor Day/Night IP camera is a new addition to the popular HCV80X series IP surveillance product family. It ensures ease of use, integration and deployment, with multilingual graphical user interface, provides powerful solution to professional surveillance applications in outdoor environment.

This manual will help you to learn how to operate and manage your HCV822Outdoor Day/Night HD IP camera and make the best use of it.

Package Contents:

1	HCV822 IP Camera	X1
2	12V DC Universal Power Adaptor	X1
3	Ethernet Cable	X1
4.	Bracket	X4

1.1 Safety Compliances

These instructions are intended to assist users with the operation of the HCV822 and also to instruct on how to avoid dangerous situations or damage to the device.

Warnings: Serious injury or death may be caused if any of the warnings below are neglected.

Cautions: Injury or damage to the equipment may occur if any of the following caution messages are neglected.



Warnings Follow these safeguards to prevent serious injury or death.

Cautions Follow these precautions to prevent potential injury or material damage.



Warnings:

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with DC 12V according to the IEC60950-1 standard. Please refer to the technical specifications for more details.

Do not use a third-party power adapter or power cord

When the device is installed on the wall or ceiling, make sure that it is firmly attached.

Notice :

- ❖ Make sure that the power supply voltage is correct before using the camera.
- ❖ Do not drop the device or expose it to physical shock.
- ❖ Do not expose the device to temperatures outside the range of -30 oC to +50oC PSU and PoE mode when the device is in operation.
- ❖ Do not expose the device to high electromagnetism radiation.
- ❖ To avoid heat accumulation, make sure that your operating environment has proper ventilation.
- ❖ Do not attempt to open, disassemble, or modify the device
- ❖ A few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average life time. The average life time varies from the differences between operating environments and usage history. Regular maintenance checks are recommended for all users. Please contact your dealer for more details.

1.2 Warranty

If you purchased your HCV822 from a reseller, please contact the company where you purchased the device for replacement, repair or refund.

If you purchased the product directly from Huacam, please contact your Huacam Sales and Service Representative for a RMA (Return Materials Authorization) number before you return the product. Huacam reserves the right to remedy warranty policy without prior notification.

Caution:

Changes or modifications to this product not expressly approved by Huacam, or operation of this product in any way other than as detailed by this User Manual, could void your manufacturer warranty. Please do not use a different power adaptor with the HCV822 as it may cause damage to the products and void the manufacturer warranty.

- This document is subject to change without notice. The latest electronic version of this user manual is available for download at:

[http://www.huacam.com/Products/IP Camera/HCV822user manual.pdf](http://www.huacam.com/Products/IP%20Camera/HCV822user%20manual.pdf)

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2. Product overview

2.1 HCV822Camera



NETWORK : 10/100 Switch LAN port for connecting to Ethernet.

LINE IN: 3.5mm Audio LINE IN(White)

LINE OUT: 3.5mm LINE OUT(Green)

DC 12V : 12V DC power jack;

2.2 HCV822 Specifications

Model	HCV822
Video Compression	H.264, MJPEG
Image Sensor Resolution	1/3", 2 Megapixel CMOS, 1920H x 1080V
Image Sensor Sensitivity	Day & night mode, exceptionally low noise levels and low-light sensitivity. Shutter: 1/10000 – 1/30 second
Focal Length	2.8mm
Aperture	F1.8
IR Cut Filter	Yes, mechanical
Day & Night Mode	Infrared LED covering up to 30m
Minimum Illumination	0.05lux, 0 lux with IR LED on
Responsivity	5.48V/lux-sec (550nm)
Pixel Dynamic Range	Wide dynamic range of 120dB with SNRMAX 44dB
Supported Maximum Video	1920x1080 (30fps)
Resolution and Frame Rate	
Video Bit Rate	32 Kbps ~ 8 Mbps, multi-rate for preview & recording
Embedded Analytics	Motion detection (up to 16 target areas)
Pre-/post-alarm Buffer	8MB
Snapshots	Triggered upon events, send via email/FTP
Network Protocol	TCP/UDP/IP, RTP/RTCP, RTSP, DHCP, DDNS, HTTP, HTTPS, SMTP, FTP, NTP
SIP/VoIP Support	Yes
Power over Ethernet (PoE)	IEEE 802.3af class 0
External Cable Connection	Network: RJ45, 10M/100M auto-sensing
Dimensions (D x L)	94mm (D) x 230mm (L)
Weight	0.98kg
Temperature / Humidity	-20°C ~ +45°C (14°F ~ 113°F) Humidity 10–90% RH (non-condensing)
Power Adapter	Output: 12VDC/1A; Input: 100–240VAC, 50–60Hz
Casing	IP66 compliant weather-proof metal case
Compliance	FCC Part 15, Subpart B Class B; CE EN 55022 Class B, EN61000-3-2, EN 61000-3-3, EN55024, EN60950-1; C-tick AS/NZS CISPR22, CISPR24; IP66

3. Installation guide

3.1 Minimum Recommended Computer System Requirement

To install HCV802, you have to have a computer, PC recommend. The minimum recommended PC system requirement listed below:

- Windows 2000, XP, Windows Vista, Windows 7 (32bit or 64bit)
- CPU: Intel Pentium 4 or higher, 2 GHz
- RAM: 1 GB (4 GB recommended for larger systems)
- Support for DirectX 8.0 and above.

3.2 Configure the HCV822via Web Browser

The HCV822has embedded Web server to respond to HTTP GET/POST requests. Embedded HTML pages allow user to configure the IP camera through Microsoft Internet Explorer (7.0 or above, 32-bit only) or Firefox (plug-in from Huacam required).

- Download Active-X Control for IE(32bit) from Huacam website:

http://www.huacam.com/index.php?option=com_jdownloads&Itemid=103&view=finish&cid=13&catid=1

- Download Firefox Plug-in from Huacam website:

http://www.huacam.com/index.php?option=com_jdownloads&Itemid=103&view=finish&cid=5&catid=1

NOTE:

- ❖ Google Chrome and Apple Safari support is NOT yet supported and status pending.
- ❖ Microsoft Internet Explorer 64-bit support is pending.
- ❖ Please temporarily disable Antivirus or Internet Security Software when download and install the Huacam Firefox plug-in for video or “GSViewerX.cab” for Microsoft Internet Explorer.

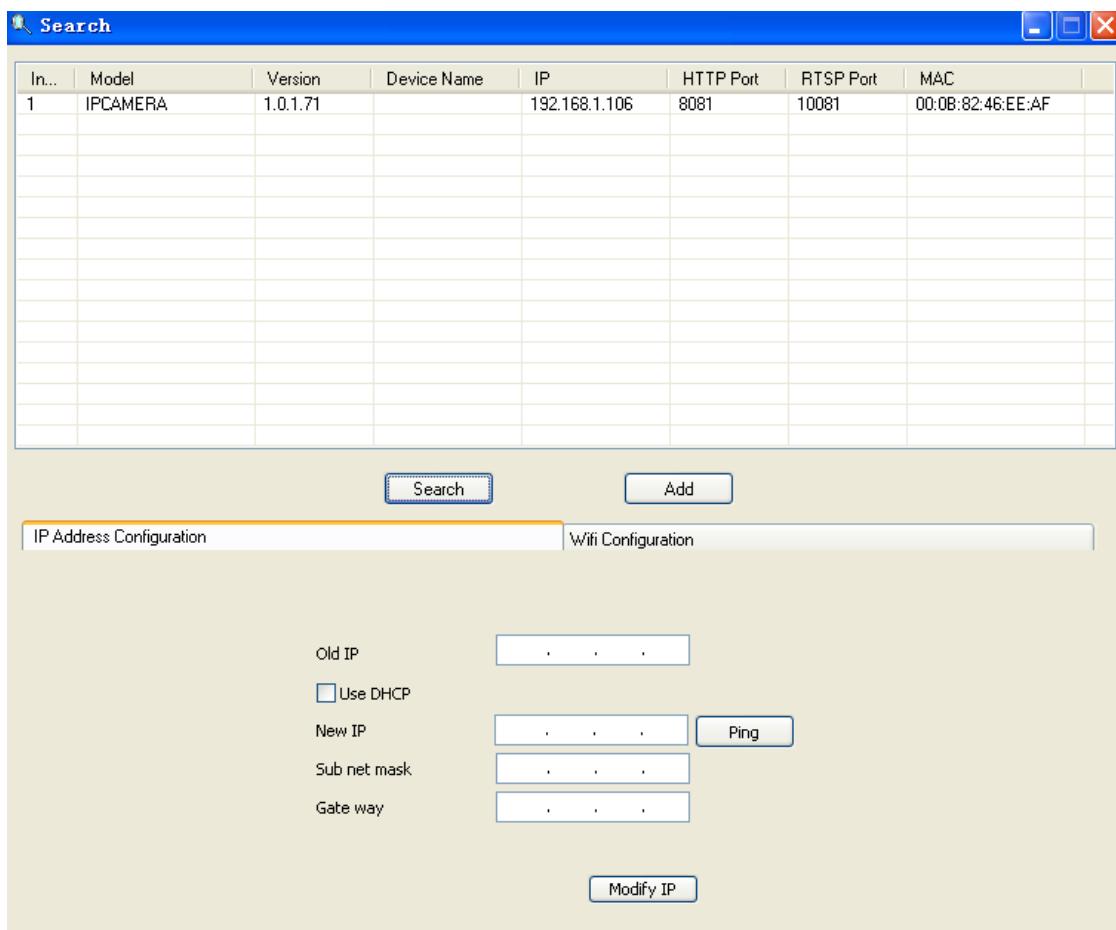
Connect the Camera to network with DHCP server (Recommended)

The HCV822by default enabled as DHCP client, it will automatically get IP address from the network with DHCP server running. User can know the IP address assigned to the camera from DHCP server log or using “SearchTool” from Huacam HC_Surf free VMS software.

1. Download and install the HC_Surf software from Huacam website:

http://www.Huacam.com/products/tools/surveillance/HC_Surf.zip

2. Run the “Search Tool” in the pull down Menu of “Manage Tool” tag
3. Click on button to begin device detection
4. The detected devices will appear in the Output field like below



5. Double click the column of the detected camera, the browser will automatically open and link to the device IP and the web configuration page.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous access)
7. Click "Configuration", the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to admin.
9. In step 6, IE will indicate that "This website wants to install the following add-on: HCViewerX.cab from Huacam Networks Inc.", allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:

http://www.huacam.com/index.php?option=com_jdownloads&Itemid=103&view=finish&cid=5&catid=1

NOTE:

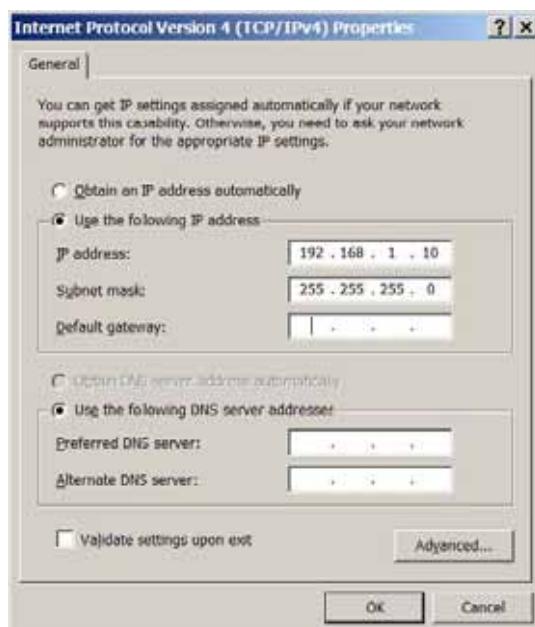
- ❖ Please temporarily disable Antivirus or Internet Security Software when download and install the Huacam Firefox plug-in for video or “HCViewerX.cab” for Microsoft Internet Explorer.

Connect to the Camera using Static IP

If no DHCP server in the network, or the camera does not get IP from DHCP server, user can connect the camera to a computer directly, using static IP to configure the camera.

The default IP, if no DHCP server; or DHCP offer time out (3 minutes), is 192.168.1.168

1. Connect the computer RJ-45 via an Ethernet cable directly to the IP camera HCV802.
2. Configure the computer using Static IP: 192.168.1.XXX (1<XXX<255, but NOT 168) and configure the “Subnet mask” to “255.255.255.0”. Leave the “Default Gateway” to “Blank” like below:



3. Power on the HCV802.
4. Start the IE or Firefox browser when the network connection is up.
5. Enter 192.168.1.168 in the address bar of the browser.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous

access)

7. Click “Configuration”, the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to admin.
9. In step 6, IE will indicate that “This website wants to install the following add-on: HCViewerX.cab from Huacam Networks Inc.”, allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:

http://www.huacam.com/index.php?option=com_jdownloads&Itemid=103&view=finish&cid=5&catid=1

NOTE:

- ❖ Please temporarily disable Antivirus or Internet Security Software when download and install the Huacam Firefox plug-in for video or “GSViewerX.cab” for Microsoft Internet Explorer.

3.3 HCV822Home Web Page

The Home Page of HCV822 shown as Figure 1:



Figure 1: Home Page of HCV822

- 1. Control Console:** PTZ Console controller for ePTZ function.
- 2. ZOOM:** Zoom in or Zoom out during ePTZ operation.
- 3. FOCUS:** Adjust the focus of image (Not Applicable to HCV802).
- 4. PTZ SPEED/Default Button:** Adjust the rotate speed of the control console (Not Applicable); “D” “Default Button” to reset the video brightness, contrast and saturation value from (auto or manual) adjusted value to factory default value.
- 5. BRIGHTNESS:** Adjust the image brightness
(will automatic save it unless readjusted)
- 6. CONTRAST:** Adjust the image contrast.
(Same as above, auto save adjusted value)
- 7. SATURATION:** Adjust the image saturation. (Same as above)
- 8. View Size:** Pull down to select between “Window Size” or “Real Size” to display the embedded video stream at configured video resolution.
- 9. Configuration** Click to enter “Configuration Page” to configure the parameters of HCV822(Administration privilege required).
- 10. Language:** Click to switch webpage language.
(Current supported: Chinese, English and Russian)

-
- 11. Play/Stop:** Start/Stop playing the video stream at embedded webpage.
- 12. Snapshot:** Click to capture and save a snapshot of current video frame displayed.
Default directory: C:\Capture
- 13. Record:** Click to Start/Stop record of current video stream into a file.
Default directory: C:\Record
- 14. Sound On/Off:** Toggle to listen/stop the sound from camera
- 15. Talk:** Toggle to talk to camera speaker. (PC microphone required)
- 16. Replay:** Click to playback the recorded video file.
- 17. Record File Path:** Click to adjust the file path of saved video files.
- 18. Motion Detection Alarm Indicator:** If motion detection alarm triggered, the indicator will flash in red.

3.4 HCV822Configuration & Language Page

- When click the “Configuration” tab, web page will link to page to configure the related parameters of the HCV802.
- There are two big categories of settings: Basic Settings and Advanced Settings. Details will be illustrated in the later Chapter.
- When click the “Language” tab, supported languages will be displayed in Figure 2. Click to select the related webpage display language.



Figure 2: Web Language Switch

- Currently firmware only support: English (default), Simplified Chinese and Russian.

4. Basic settings explanation

4.1. System Settings Page

This page allow user to configure the system settings of HCV802.

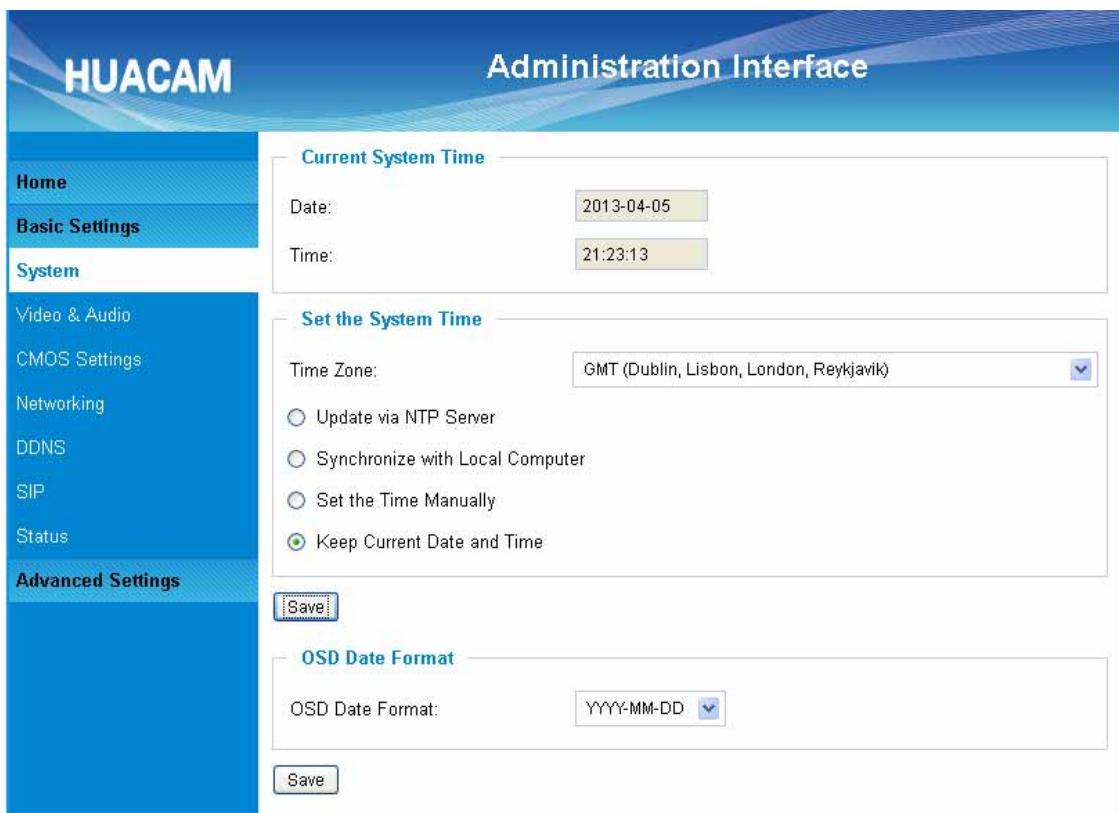


Figure 3: System Settings Page

- **Current System Time:** Display time current system is running at
- **Set the System Time:** Configure the time system is running.
 - **Time Zone:** Select from pull down menu the time zone unit located
 - **Self-Defined Time Zone:** Use the self-defined time zone for automatic daylight saving time adjustment. Format please refer to the “help over mouse”
 - **Update via NTP Server:** Synchronize time using NTP protocol with a Time Server over the Internet cloud (*)
 - **Synchronize with Local Computer:** Synchronize time with local computer
 - **Set the Time Manually:** Manually input the time
 - **Keep Current D/T:** Select to use camera current displayed time
- **OSD Date Format:** Pull down to select date format displayed on video screen

- **Device Name:** The name of device which will be shown in the result of “Search Tool” of HC_Surf VMS program.
- **Expansion Port Mode Select:** The setting for external expansion interface module

NOTE:

(*) If select this option, a valid DNS server must be preconfigured under **Basic Settings Networking** button has to be clicked to save all the changes made to the device.

4.2. Video & Audio Setting Page

This page allows user to configure the video and audio related settings.

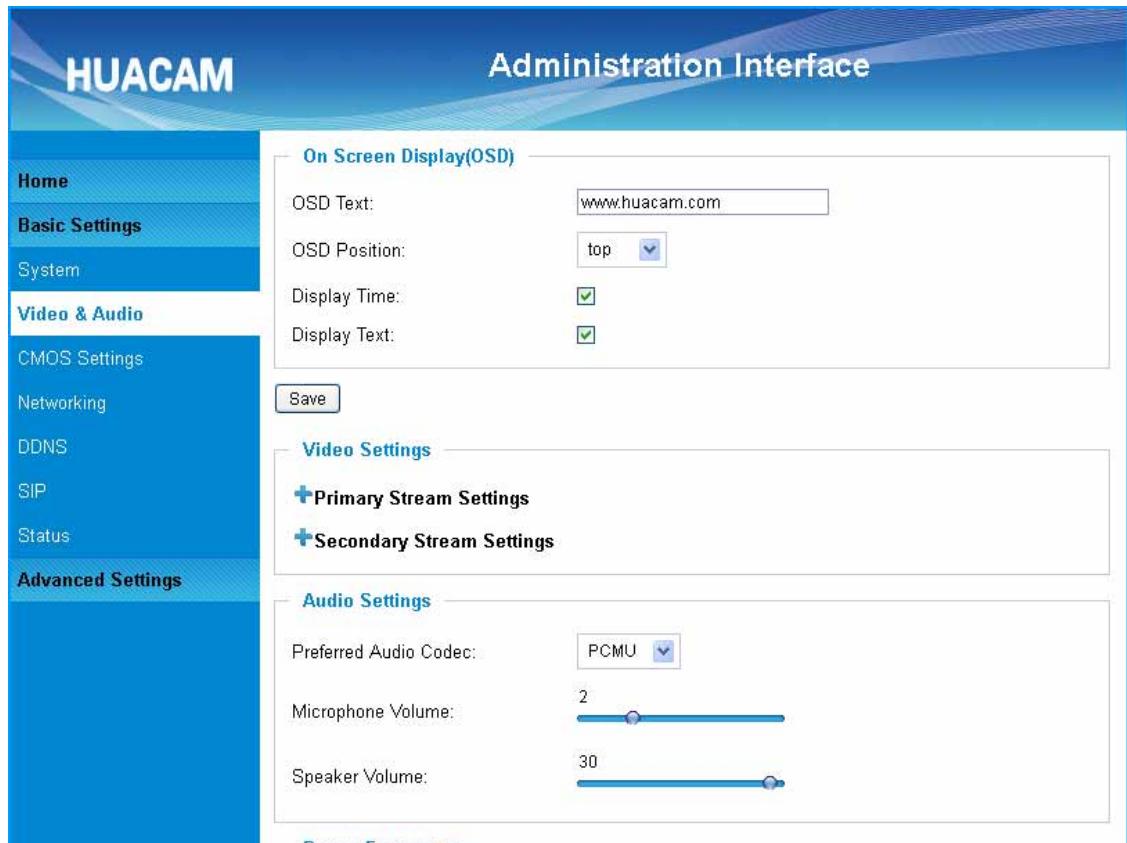


Figure 4-1: Video & Audio Settings Page

- ◆ **On Screen Display (OSD):** Display time stamp and text on the video screen.

- **OSD Text:** Inputted text (to identify the camera) shown on the screen.
 - **OSD Position:** Show the OSD in either top or bottom position on screen.
 - **Display Time:** When checked, time stamp will display on video screen
 - **Display Text:** When checked, inputted text will display on video screen.
- ◆ **Audio Settings:** Pull down to disable due to no microphone in this camera.
- **Microphone Volume:** Slide to adjust microphone gain.
 - **Speaker Volume:** Slide to adjust the built-in speaker volume.
- ◆ **Power Frequency:** Select correct local power frequency to avoid video flicking effect under fluorescence light condition. Default is Outdoor.

Video Settings

Primary Stream Settings

Preferred Video Codec:	H264 <input type="button" value="▼"/>
Resolution:	1280*720 (16:9) <input type="button" value="▼"/>
Bit Rate:	4096 <input type="button" value="▼"/> kbps
Maximum Frame Rate:	25 <input type="button" value="▼"/> fps
Bit Rate Control:	<input checked="" type="radio"/> CBR <input type="radio"/> VBR
I-frame Interval:	20 Frame(1-100)

Secondary Stream Settings

Preferred Video Codec:	H264 <input type="button" value="▼"/>
Resolution:	320*240 (4:3) <input type="button" value="▼"/>
Bit Rate:	256 <input type="button" value="▼"/> kbps
Maximum Frame Rate:	25 <input type="button" value="▼"/> fps
Bit Rate Control:	<input checked="" type="radio"/> CBR <input type="radio"/> VBR
I-frame Interval:	25 Frame(1-100)

Figure 4-2: Video & Audio Settings Page

◆ Primary Stream Settings:

- **Preferred Video Codec:** MJPEG and H.264 supported, H.264 recommended.
- **Resolution:** The video resolution in pixels used in video of camera
- **Bit Rate:** video bit rate used
- **Maximum Frame Rate:** Maximum frame rate used. More data if big frame used
- **Bit Rate Control:** Constantly bit rate, or variable bit rate
- **Image Quality:** Image quality used when Variable Bit Rate used
- **I-frame Interval:** I-frame interval

◆ Secondary Stream Settings: Pull down to select, same as Primary steam..**NOTE:**

- ❖ H.264 suggested if camera needs to be viewed via Internet.
- ❖ If MJPEG selected, reduce max. frame rate to min. value to save bandwidth and get better image
- ❖ Huacam IP Camera provides two video streams, user can use them with flexibility. For example, the high-resolution stream for local recording; another low or high resolution for remote monitoring; or vice versa depending application scenarios.

4.3. CMOS Settings Page

This page allows user to adjust the CMOS parameters:

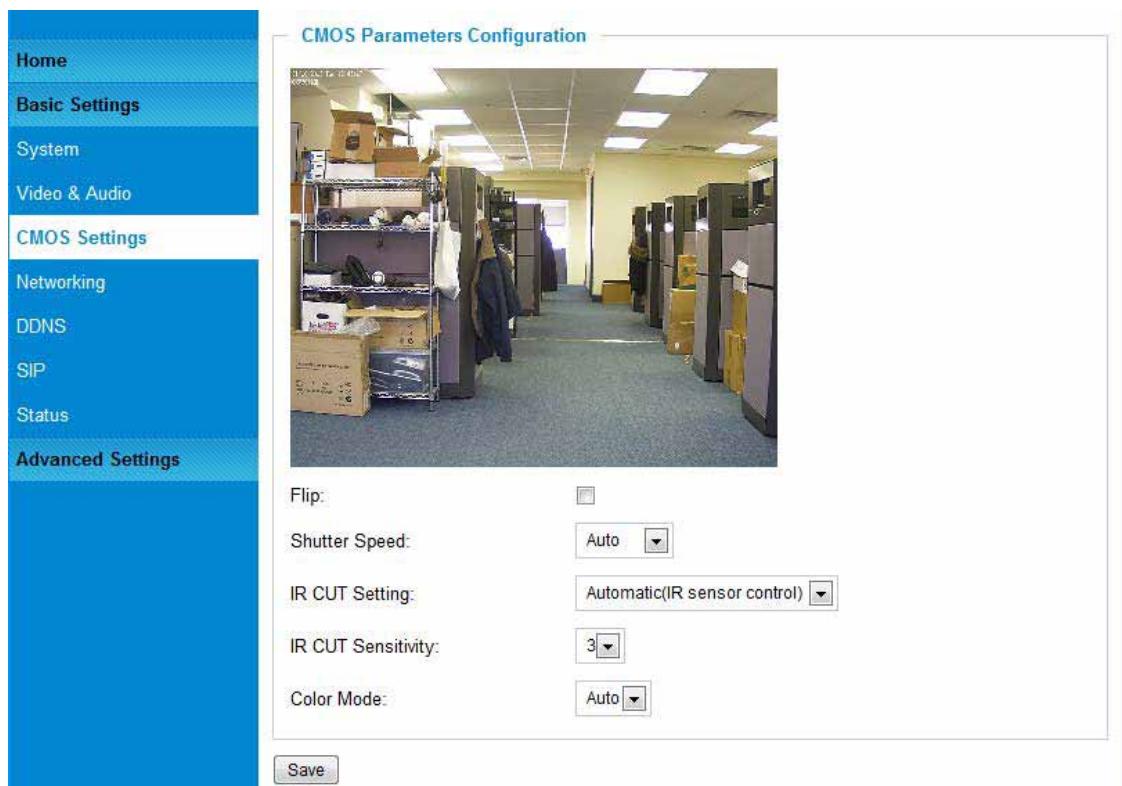


Figure 5: CMOS Settings Page

- **Flip:** Check this will allow video flip 180° vertically in horizontal axis.
- **Shutter Speed:** Camera Shutter Speed. There are 10 options, with Auto, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/5000 and 1/10000
- **IR CUT Setting:** Manual or Automatic (IR Sensor or Algorithm controlled mechanical IR CUT)
- **IR CUT Sensitivity:** Sensitivity of IR CUT be triggered, 5 lever total
- **Color Mode:** Camera Color Mode. There are three options: Color; Black/White; Auto.

NOTE:

❖ Auto option recommended for Shutter Speed, IR CUT Setting and Color Mode.

4.4. Networking Setting Page

This page allows user to configure network related parameters:

IP Address Configuration

Dynamically Assigned via DHCP
 Statically Configured as:

IP Address:	192.168.1.106
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1

DNS Configuration

Obtain DNS Server Address Automatically
 Use the Following DNS Server Address:

Primary DNS Server:	192.168.1.1
Secondary DNS Server:	

HTTP

HTTP Port:	8081
------------	------

Save

Figure 6: Networking Setting Page

- ◆ **IP Address Configuration:** Camera IP address configuration
 - **Dynamically Associated via DHCP:** Default setting, DHCP server assign IP to camera.
 - **Statically Configured as:** Static IP address configuration
- ◆ **DNS Configuration:** DNS server IP, must be configured correctly if using static IP.
- ◆ **HTTP:** Web access TCP port, default 80.

NOTE:

- ❖ If camera behind SOHO router with port forwarding configuration for remote access, static IP or static DHCP has to be used to avoid IP address change after router reboot.
- ❖ TCP port above 5000 suggested if port forwarding HTTP remote access, due to some ISP

would block port 80 inbound traffic. For example, change the default HTTP port from 80 to 8088, to make sure the port forwarding not likely be blocked.

- ❖ In addition to HTTP port, RTSP port also required to be configured for port forwarding, in order for remote party viewing the H.264 video.
- ❖ If change the default port from TCP 80 to port “A”, then RTSP port should be “2000+A”. Both TCP port “A” and “2000+A” should be configured for port forwarding in the router. For example, the HTTP port changed to 8088, the RTSP port should be 10088, both 8088 and 10088 should be configured for port forwarding in order for remote camera video access.

4.5. DDNS Settings Page

This page allows user to configure dynamic DNS related parameters:

Dynamic DNS Settings

DDNS Active:

DDNS ISP Type:

Self-Define DDNS Address:

Site Name:

DDNS Account:

DDNS Password:

STUN Server:

Figure 7: DDNS Setting Page

- **DDNS Active:** Enable DDNS by check this field.
- **DDNS ISP Type:** Select the DDSN service provider from the pull-down menu list
- **Self-Define DDNS Address:** Input the self-defined DDNS address
- **Site Name:** DDNS site name

- **DDNS Account:** DDNS account name
- **DDNS Password:** DDNS password
- **STUN Server:** Stun server FQDN or IP. If device behind a non-symmetric router, STUN server can help to penetrate & resolve NAT issue.

4.6. SIP Setting Page

This page allows user to configure SIP related parameters.

HCV822can be configured as SIP endpoint to call out when alarm triggered; or allow permitted number to call in to check the video if Huacam video IP phone is used.

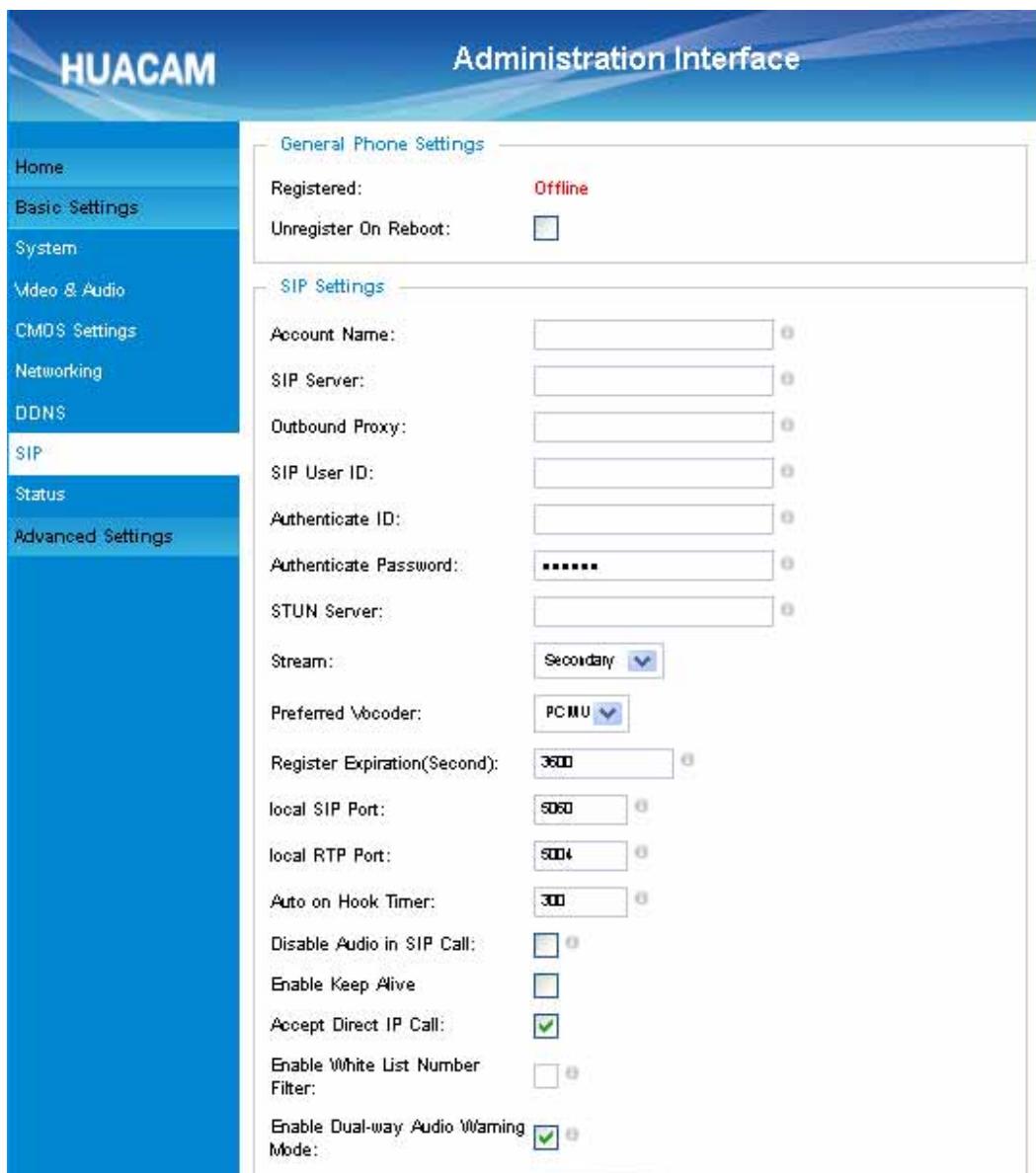


Figure 8-1: SIP Setting Page

- **Registered:** SIP registration status. Display “Online” in Green, “Offline” in Red.
- **Unregistered on Reboot:** If checked and server support, reboot camera will unbind all registration in same SIP account.
- **Account Name:** SIP account name
- **SIP Server:** FQDN or IP of SIP server from VoIP service provider
- **Outbound Proxy:** IP or FQDN of Outbound proxy server, helps penetrate NAT/Firewall
- **SIP User ID:** SIP username, or telephone number from ITSP
- **Authenticate ID:** Authenticate ID used by SIP proxy
- **Authenticate Password:** Authenticate password used by SIP proxy
- **STUN Server:** STUN server used to resolve NAT if have

- **Steam:** Which stream used for SIP call.
- **Preferred Vocoder:** Audio codec used for SIP call (NOTE)
- **Registration Expiration:** Registration expiration time, default 3600 seconds
- **Local SIP Port:** Local SIP port, default 5060
- **Local RTP Port:** Local RTP port for media, default 5004
- **Auto on hook Timer:** Auto On Hook timer, default 300 seconds
- **Disable Audio in SIP Call:** Checked to disable audio for SIP call
- **Enable Keep Alive:** Checked to enable, help NAT resolution
- **Accept Direct IP Call:** Check to accept peer to peer IP call.

The screenshot shows the SIP Setting Page interface. It includes sections for SIP call settings, Phone List, and White List. The SIP call settings section contains checkboxes for 'Enable Keep Alive' (unchecked), 'Accept Direct IP Call' (checked), 'Enable White List Number Filter' (unchecked), and 'Enable Dual-way Audio Warning' (checked). Below these are buttons for 'Upload' and 'Delete'. A note at the bottom states: 'Note: You must restart the device to apply the changes.' A 'Save' button is located below the settings. The Phone List and White List sections both have tables with columns for 'Phone Number' and 'Remark Name', and buttons for 'Add...' and 'Remove'. Each list also has a note at the bottom: 'Note: You must restart the device to apply the changes.'

Phone Number	Remark Name	Remove
<input type="text"/>	<input type="text"/>	<input type="button" value="Add..."/>

Note: You must restart the device to apply the changes.

Phone Number	Remove
<input type="text"/>	<input type="button" value="Add..."/>

Note: You must restart the device to apply the changes.

Figure 8-2: SIP Setting Page

- **Enable White List Number Filter:** Check to allow only white list number to call in, for security.
- **Enable Dual-way Audio Warning:** Check to enable two-way audio warning.
- **Phone List/Phone Number:** Callee or call receiver number when alarm call triggered.
- **White List/Phone Number:** Phone numbers allowed to call into the camera.

4.7. Status Page

This page shows the HCV822operation status:

System Statistics	
Product Model:	
Hardware Version:	V2.0B
Part Number:	9670003920B
Bootloader Version:	1.0.0.0
Core Version:	1.0.1.71
Base Version:	1.0.1.71
Firmware Version:	1.0.1.71
System Up Time Since:	11 hours 54 minutes

Network Status	
MAC Address:	00:0B:82:46:EE:AF
LAN IP Address:	192.168.1.106
LAN Subnet Mask:	255.255.255.0
LAN Default Gateway:	192.168.1.1
DDNS Status:	Disabled
SIP Registered:	Offline

Camera Type	
Camera Type:	Aptina, MT9M034 Pixels 1280*960

Figure 9: Status Page

NOTE:

- ❖ When SIP account registered, the status will display “**Online**” in **Green**.
- ❖ When SIP account unregistered, the status will display “**Offline**” in **Red**, as below.

5. Advanced settings explanation

The supports all the traditional and advanced telephony features.

5.1 User Management Page

This page allows user to do user management:

The screenshot shows the 'User Management' section of the HUACAM Administration Interface. The left sidebar lists various settings like Home, Basic Settings, Advanced Settings, User Management (which is selected and highlighted in blue), Maintenance, SMTP, FTP, PTZ, Alarm Server, Motion Detection, and Syslog. The main content area has a header 'Manage User'. It contains fields for 'Existing User Name' (a dropdown menu with options including '--Add New User--'), 'User Name' (a text input field), 'User Password' (a text input field), 'Confirm User Password' (a text input field), 'Privilege' (a dropdown menu set to 'Administrator'), and buttons for 'Add', 'Update', and 'Delete'. Below this is a section titled 'Manage Anonymous Viewing' with a checkbox labeled 'Allow Anonymous Viewing' which is checked. At the bottom is a 'Save' button.

Figure 10: User Management Page

- **Existing User Name:** Allow revise existing user or add new user
- **User Name:** The name of user need to be revised
- **User Password:** New password if revise password
- **Confirm User Password:** Re-enter the new password for verification
- **Privilege:** Choose user privilege
- **Allow Anonymous Viewing:** When checked, no security enhanced. Any person can view the camera if knowing the IP or FQDN of the camera, but can NOT change anything, just view ONLY.

5.2 Maintenance Page

This page allows user to maintain the camera:

Figure 11: Maintenance Page

- **Restart:** When clicked, the camera will reboot or restart
- **Restore:** When clicked, the camera will be reset to factory default, wiping out all the configurations (except IP address)

Firmware Upgrade and Provisioning:

- **Upgrade via:** Upgrade firmware via TFTP, HTTP or HTTPS
- **Firmware Server Path:** Server path holding the firmware
- **Config Server Path:** Server path holding the configuration file (auto provisioning)
- **XML ConfigFile Password:** Password for encrypt the XML based configuration file
- **Automatic Upgrade Interval (Minutes):** Time interval for automatic upgrade, default 10080
- **Automatic Upgrade:** Checked to enable automatic firmware upgrade and provisioning.

NOTE:

- ❖ Only XML based automatic provisioning is supported by HCV802.

5.3 SMTP Setting Page (Email Alarm)

This page allows user to configure email client to send out email when alarm triggered:

SMTP Server Settings

Enable SMTP:

SMTP Server: _____

SMTP Server Port: 25

From E-Mail address: _____

To E-Mail address 1: _____

To E-Mail address 2: _____

To E-Mail address 3: _____

User Name: _____

Password: •••••

SSL:

Email Subject: _____

Email Content:

1 Required Fields.
2 Valid DNS server is required for hostname.

Figure 12: SMTP Setting Page

- **Enable SMTP:** When checked, email client is enabled.
- **SMTP Server:** SMTP Email Server IP or Domain Name
- **SMTP Server Port:** Port number used by server to send email
- **From Email address:** The email address of alarm email sending from, usually client email ID
- **To E-Mail address:** The email address to receive the alarmed email, total 3 included.

- **User Name:** Email client User ID
- **Password:** Email client password
- **SSL:** Check if the SMTP email server requires SSL

NOTE:

- ❖ Click “Save” to save the email configuration information.
- ❖ Click “Test” after configuration, if setting is correct, a test email will send out and “Test successful!” yellow bar will display like below

5.4 FTP Settings Page (Upload Alarm)

This page allows user to configure FTP parameters to upload the alarm or video recording::

The screenshot shows the HUACAM Administration Interface. The left sidebar has a blue navigation bar with the following items: Home, Basic Settings, Advanced Settings (selected), User Management, Maintenance, SMTP, FTP (selected), PTZ, Alarm Server, Motion Detection, and Syslog. The main content area has a title 'Administration Interface' and a sub-section 'FTP Settings'. It contains the following form fields:

- Enable FTP:
- FTP Server: [text input]
- FTP Server Port: 21
- User Name: [text input]
- Password: [text input] ⓘ
- Path: [text input]

A yellow warning box at the bottom states: 'Valid DNS server is required for hostname.' At the bottom of the form are two buttons: 'Save' and 'Test'.

Figure 13: FTP Setting Page

- **Enable FTP:** When checked, built-in FTP client is enabled.
- **FTP Server:** IP or Domain name of FTP site or server
- **FTP Server Port:** TCP port for FTP server, default port number 21
- **User Name:** FTP server User ID
- **Password:** FTP server user password
- **Path:** Path in the server where upload files are stored.

NOTE:

- ❖ Click “Save” to save the FTP configuration information.
- ❖ Click “Test” after configuration, if setting is correct, a test FTP operation will be performed and “Test successful!” yellow bar will display if the operation is successful.

5.5 Alarm Server Settings Page (Upload Alarm to supported VMS or HTTP Server)

This page allows user to configure alarm HTTP server to upload alarms:

The screenshot shows the HUACAM Administration Interface. On the left, there's a vertical sidebar with a blue background containing navigation links: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, PTZ, Alarm Server (which is highlighted in blue), Motion Detection, and Syslog. The main content area has a white background with a blue header 'Administration Interface'. It displays a form titled 'Alarm HTTP Server Settings' with four input fields: 'Server Name' (empty), 'URL' (empty), 'User Name' (empty), and 'Password' (empty). Below these fields is a 'Save' button. The overall interface has a clean, modern design with a blue and white color scheme.

Figure 14: Alarm HTTP Server Setting Page

- **Server Name:** The name of HTTP server or VMS system
- **URL:** URL of the Server
- **User Name:** User ID from that Server
- **Password:** Password for that User ID

NOTE:

- ❖ Huacam provide HTTP API to help 3rd party company by using HTTP server or VMS to develop further solutions for its customers.
- ❖ Huacam IP Camera are ONVIF certified.

5.6 Motion Detection Configuration Page (Set Alarm)

This page allows user to configure motion detection to trigger alarms:

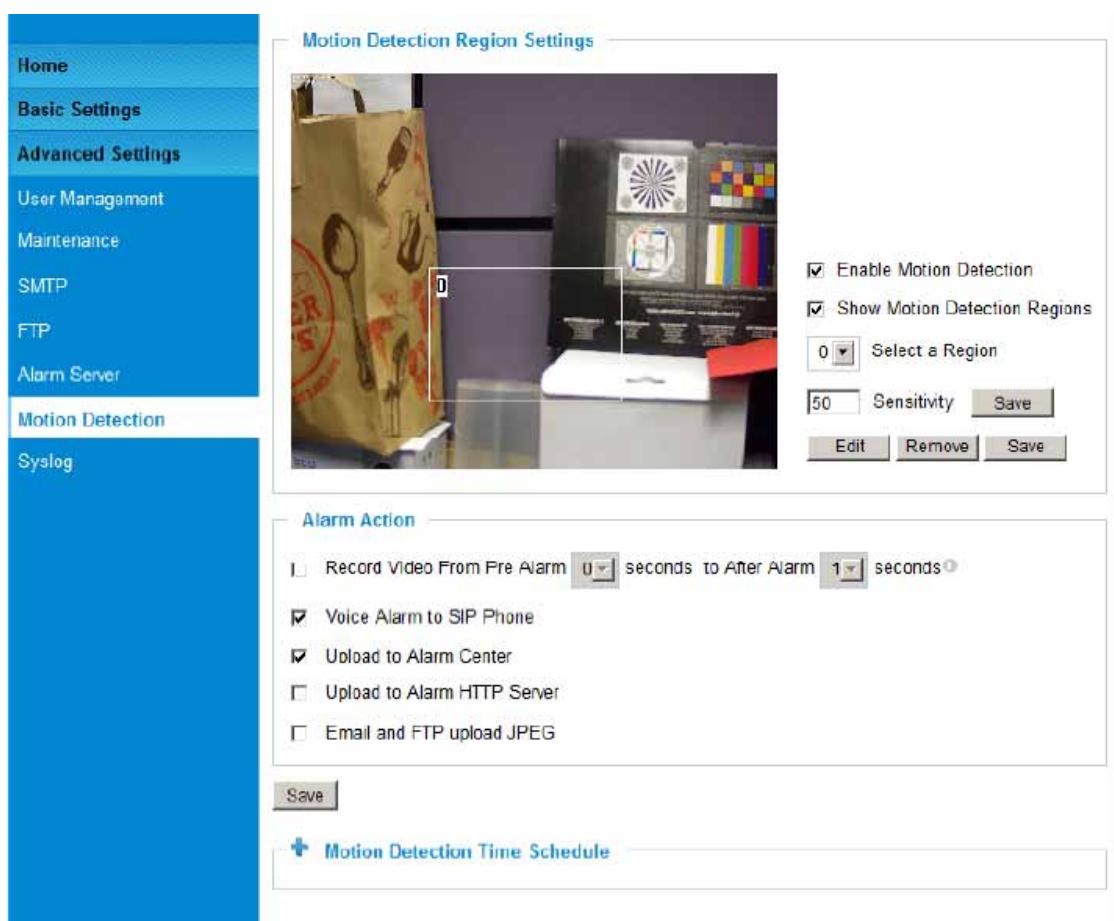


Figure 15-1: Motion Detection Configuration Page

- **Enable Motion Detection:** When checked, Motion Detection enabled.

- **Show Motion Detection Regions:** When checked, Motion Detection region with number will be displayed in White Rectangle in the screen; when “Edit” clicked, the Rectangle will become **Red**, as shown in Figure 16-1.
- **Select a Region:** Pull down to select and configure alarm region, altogether 16 alarm region available, from 0 to 15.
- **Sensitivity:** Select configured alarm region number, input number for sensitivity to trigger alarm, 100 is the maximum sensible value.

Alarm Action:

- **Record Video From.....** Allow user to select how long pre/after Alarm trigger moment, the video be captured.
- **Voice Alarm to SIP Phone:** When checked, a SIP alarm phone call will be made to pre-configured number.
- **Upload to Alarm Center:** When checked, the alarm video will be transferred to Alarm Center, like Huacam free GSurf_Pro VMS software.
- **Upload to Alarm HTTP Server** When checked, the alarm will be sent to Alarm HTT Server.

3rd Party Server also can be used via HC HTTP API

NOTE:

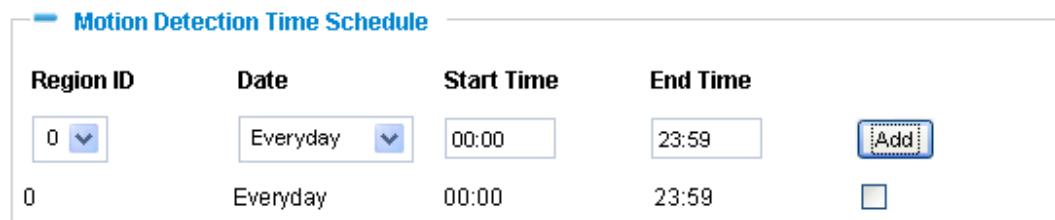
- ❖ Huacam free HC_Surf VMS software can be downloaded here:

http://www.huacam.com/index.php?option=com_jdownloads&Itemid=103&view=finish&cid=4&catid=1

- **Email and FTP upload JPEG:** When checked, a snapshot of trigger moment will be generated and be emailed to pre-configured email account, also upload to FTP server if configured.

5.7 Motion Detection Time Schedule

This page allows user to configure Motion Detection Operation Schedule:



The screenshot shows a configuration page for motion detection time schedules. It has a header "Motion Detection Time Schedule". Below it is a table with four columns: Region ID, Date, Start Time, and End Time. A "Add" button is located at the top right of the table area.

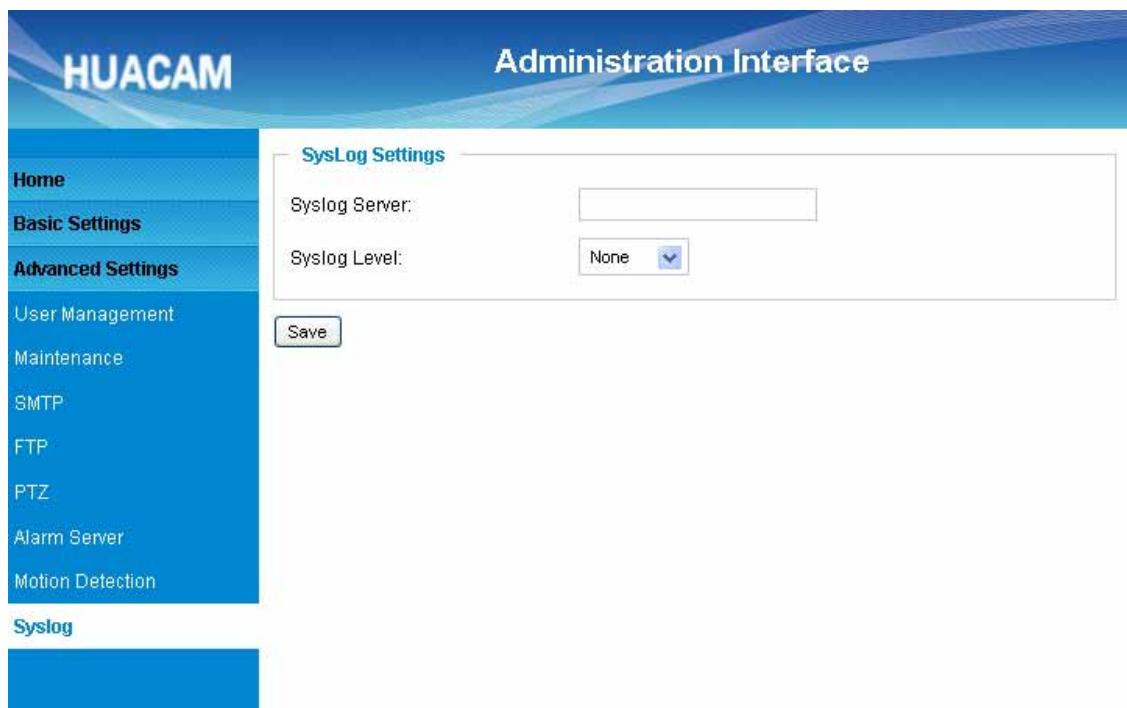
Region ID	Date	Start Time	End Time	
0	Everyday	00:00	23:59	
0	Everyday	00:00	23:59	<input type="checkbox"/>

Figure 15-2: Motion Detection Schedule Configuration Page

- As shown in Figure 15-2, user can configure the Motion Detection Region with related Start and Stop time to control the motion detection operation.

5.8 Syslog Settings Page (Troubleshooting)

This page allows user to enable the Syslog to help troubleshooting problems:



The screenshot shows the "Administration Interface" with a sidebar menu on the left. The menu items include Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, PTZ, Alarm Server, Motion Detection, and Syslog. The "Syslog" item is currently selected. The main content area is titled "SysLog Settings" and contains two input fields: "Syslog Server" and "Syslog Level". A "Save" button is located below the input fields.

Figure 16: Alarm Server Setting Page

- **Syslog Server:** Syslog server IP or Domain Name
- **Syslog Lever:** Lever of syslog message sent to the syslog server:

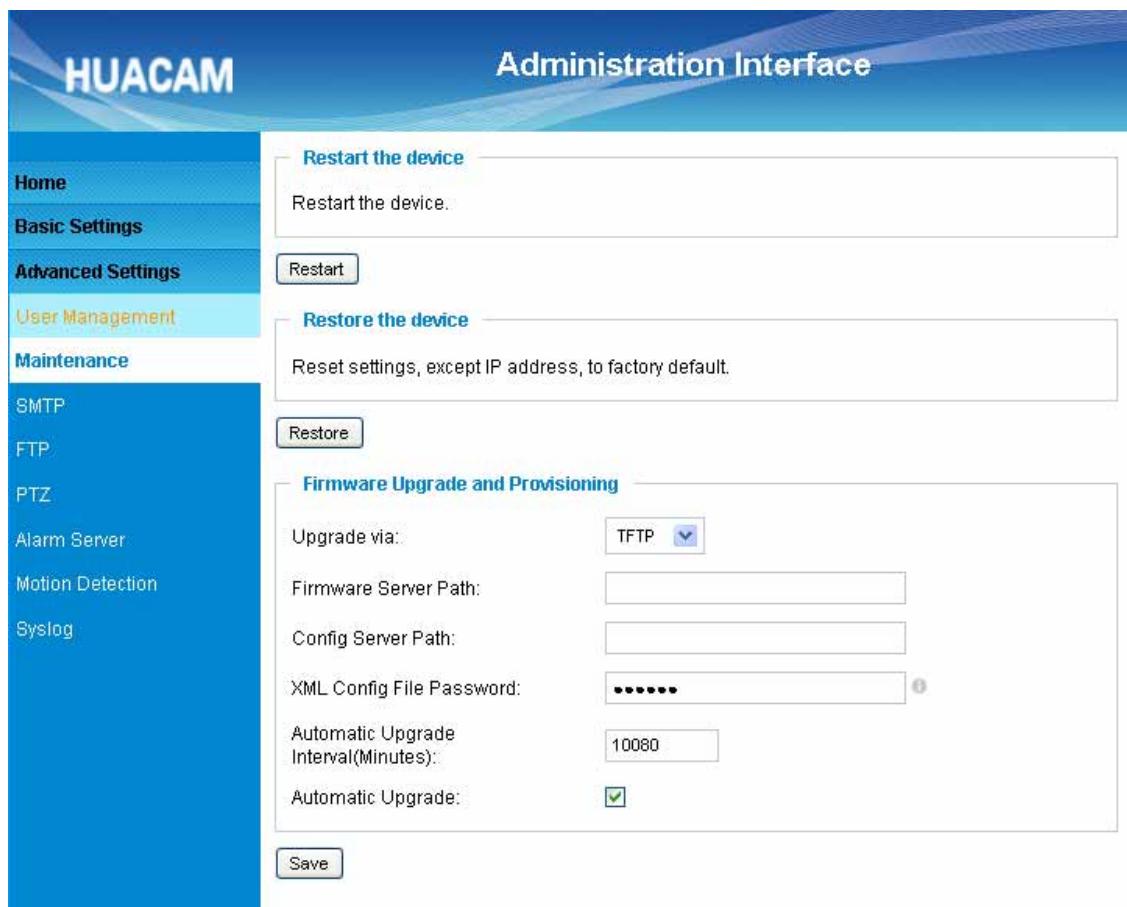
None, Debug, Info, Warning, Error.

5.9 Software Upgrade

Software upgrade can be done via either TFTP, HTTP or HTTPS. The corresponding configuration settings are in the ADVANCED SETTINGS configuration page.

5.10 Software Upgrade via TFTP, HTTP or HTTPS

This page allows user to configure firmware upgrade:



The screenshot shows the 'Administration Interface' for a HUACAM device. The left sidebar has a blue background with white text, listing various configuration sections: Home, Basic Settings, Advanced Settings (which is currently selected), User Management, Maintenance, SMTP, FTP, PTZ, Alarm Server, Motion Detection, and Syslog. The main content area has a white background with a blue header bar. It contains several sections:

- Restart the device:** A text input field containing "Restart the device." followed by a "Restart" button.
- Restore the device:** A text input field containing "Reset settings, except IP address, to factory default." followed by a "Restore" button.
- Firmware Upgrade and Provisioning:** This section contains the following fields:
 - Upgrade via: A dropdown menu set to "TFTP".
 - Firmware Server Path: An empty text input field.
 - Config Server Path: An empty text input field.
 - XML Config File Password: A password field containing "*****" with a visibility icon.
 - Automatic Upgrade Interval(Minutes): A text input field containing "10080".
 - Automatic Upgrade: A checked checkbox.

At the bottom of the form is a "Save" button.

Figure 17: Firmware Upgrade and Provisioning

5.11 Instructions for local firmware upgrade using TFTP server

1. Unzip the file and put all of them under the root directory of the TFTP server.
2. Put the PC running the TFTP server and the device in the same LAN segment.
3. Please go to File -> Configure -> Security to change the TFTP server's default setting from "Receive Only" to "Transmit Only" for the firmware upgrade.
4. Start the TFTP server, in the phone's web configuration page
5. Configure the Firmware Server Path with the IP address of the PC
6. Update the change and reboot the unit

End users can also choose to download the free HTTP server from <http://httpd.apache.org/> or use Microsoft IIS web server.

5.12 Configuration File Download

Huacam SIP Device can be configured via Web Interface as well as via Configuration File through TFTP or HTTP/HTTPS. “Config Server Path” is the TFTP or HTTP/HTTPS server path for configuration file. It needs to be set to a valid URL, either in FQDN or IP address format. The “Config Server Path” can be same or different from the “Firmware Server Path”.

A configuration parameter is associated with each particular field in the web configuration page. A parameter consists of a Capital letter P and 1 to 3 (Could be extended to 4 in the future) digit numeric numbers. i.e., P2 is associated with “Admin Password” in the ADVANCED SETTINGS page. For a detailed parameter list, please refer to the corresponding firmware release configuration template.

When Huacam Device boots up or reboots, it will issue request for configuration file named “cfgxxxxxxxxxxxx.xml”, where “xxxxxxxxxxxx” is the MAC address of the device, i.e., “cfg000b820102ab.xml”. The configuration file name should be in lower cases.

Currently HCV822only support XML configuration.

6. Restore factory default setting

WARNING!

Restoring the Factory Default Setting will DELETE all configuration information of the camera. Please BACKUP or PRINT out all the settings before approach to following steps. Huacam will not take any responsibility if you lose all the parameters of setting or cannot connect to your VoIP service provider.

6.1 Factory reset

Reset from Web Interface

This page allows user to configure dynamic network related parameters:

The screenshot shows the HUACAM Administration Interface. On the left, there is a sidebar with the following menu items: Home, Basic Settings, Advanced Settings, User Management, Maintenance (which is currently selected), SMTP, FTP, PTZ, Alarm Server, Motion Detection, and Syslog. The main content area has a title "Administration Interface". It contains three sections: "Restart the device", "Restore the device", and "Firmware Upgrade and Provisioning". In the "Restart the device" section, there is a text input field containing "Restart the device." and a "Restart" button. In the "Restore the device" section, there is a text input field containing "Reset settings, except IP address, to factory default." and a "Restore" button. In the "Firmware Upgrade and Provisioning" section, there are several configuration fields: "Upgrade via:" dropdown set to "TFTP", "Firmware Server Path:" text input field, "Config Server Path:" text input field, "XML Config File Password:" masked text input field, "Automatic Upgrade Interval(Minutes):" text input field containing "10080", and "Automatic Upgrade:" checked checkbox. At the bottom of this section is a "Save" button.

Figure 18: Factory Reset from Web Interface

7. Ip surveillance FAQ

1. What is the default IP address of the HCV802?

The default IP configuration is DHCP.

2. Why can I not view the live video stream in Microsoft Internet Explorer?

Please double check whether the IE add-on was installed correctly.

Once you log into the HCV822web interface, Internet Explorer will indicate that this website wants to install the following add-on: HCViewer.cab' from Huacam Networks, Inc. Please install this add-on when prompted by IE.

3. Why can't I access the HCV822web configuration interface?

Q 1: Is your internet service down?

A 1: Connect a PC to the internet to test the connection.

Q 2: Are the PC and the device in different subnets?

A 2: Check the subnet mask and default gateway of the device and PC.

Q 3: Is there a conflict with another IP address?

A 3: Try to change the IP address of the device.

Q 4: Has the HTTP port been changed?

A 4: Contact the administrator of the device for more information.

4. The HCV822web configuration page is not displayed correctly in IE8 ?

In IE8, Compatibility View might need to be enabled for the HCV822web configuration page to load properly. To enable compatibility view, open IE8, click Tools, Compatibility View Setting, and add the HCV822web configuration pages to the Compatibility View.

5. How do you watch secondary video stream?

Login to the home page of the HCV822web GUI, click Play to watch the video stream. To watch a secondary video stream, right click on the video, and select Secondary Stream on the pop-up menu. Try reinstalling the Huacam Viewer add-on for IE if you cannot see the video stream.

6. What is DDNS? Is it important for IP surveillance product to have DDNS support?

DDNS is an acronym for Dynamic Domain Name Service. It is important to choose an IP network camera that has DDNS support for dynamic IP addresses. Chances are that the network has a dynamic IP address (which changes with every log on). A DDNS service makes sure that the camera's IP address always matches up to the current server address. DDNS also allows a website to be linked to the IP camera that is constantly updated with the correct information and has a reliable feed.

7. Why is Windows Media Player unable to play the recorded video files?

The HCV822 uses the H.264 video codec. Windows Media Player may lack the proper H.264 decoder to play the recorded video. Please download the Microsoft FFDShow H.264 decoder from <http://sourceforge.net/projects/ffdshow-tryout/> and install it.

8. Alarm Triggered Events do not work with Surf_Pro?

Please double check the Alarm Action on your HCV802. Login to the web GUI of the HCV802, go to the Motion Detection or Alarm Events page, and make sure option Upload to Alarm Center is checked.

9. Recommended to save the video files in different directories when using HC_Surf?

It is better to save video files in different directory to prevent accidental deletion of the recorded files you need.

10. How to use a cell phone to watch the HCV822 video stream?

You must set the video resolution to QCIF to watch the HCV822 video stream from a cell phone. Make sure to set the bit rate to 64 kbps to ensure the best video quality.

11. Why the IP address of the device NOT reset when clicking the "Restore" button?

The HCV822 could be installed in areas that are not easy to access. For example, it could be installed on the roof of a building or the ceiling of an office. This makes it difficult to reinstall the device, therefore the "Restore" function will not clear the IP address.

12. Why can't the live video stream be viewed using a mobile phone or HC_Surf after changing the HTTP Port of the device?

Make sure that the RTSP port of the device is set to 2000 plus the HTTP Port number. For example, if the HTTP port is 88, then the RTSP port of the device that you configured on HC_Surf or mobile phone should be 2088.

13. Port forwarding

Two ports must be forwarded on your router to watch video from aHCV822that is located on a private network from a PC in a public network. The web port (HTTP) and the RTSP port. Please make note that the RTSP port number changes according to the web port. If the web port is 80, then the RTSP port is 554. If the web port is not 80, then the RTSP port equals the web port +2000. For example, if the web port is 88, then the RTSP port will be 2088.

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